

## Impact case study (REF3)

<b>Institution:</b> University of Essex		
<b>Unit of Assessment:</b> 18 - Law		
<b>Title of case study:</b> Operationalising Human Rights Standards in the Governance of State and Business Use of Data Analytics and Artificial Intelligence		
<b>Period when the underpinning research was undertaken:</b> October 2015 – 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Lorna McGregor	Professor	October 2010 - present
Daragh Murray	Senior Lecturer	April 2015 - present
Ahmed Shaheed	Senior Lecturer	April 2014 - present
Maurice Sunkin QC	Professor	October 1989 - present
<b>Period when the claimed impact occurred:</b> 2017 – 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b>		
<p>Our research has shaped landmark international standards adopted by the UN Human Rights Council (HRC) on how human rights law applies to the design, development and use of artificial intelligence technologies (AI). Our research has also reinforced human rights protections in the digital age and strengthened legislative and policy frameworks, including changing the approach of two national regulators (the UK Investigatory Powers Commissioner on intelligence oversight and the Surveillance Camera Commissioner on facial recognition technology); informing how the UK Parliament's Joint Committee on Human Rights analysed the legality and legitimacy of contact-tracing apps; influencing the development of an AI Strategy of a major telecoms company; and framing national policy and advocacy strategies on facial recognition technology.</p>		
<b>2. Underpinning research</b>		
<p>Established in 2015 with substantial funding from the Economic and Social Research Council, the Human Rights, Big Data and Technology Project (HRBDT) is an interdisciplinary research project (covering computer science, economics, law, philosophy, political science and sociology) based at Essex and partnering with Cambridge and the Geneva Academy of International Humanitarian Law and Human Rights [G1]. It was one of the world's first research programmes focused on identifying and assessing the risks and opportunities for human rights posed by AI technologies and proposing solutions to ensure that new technologies are designed, developed, deployed and regulated in ways that enable, rather than threaten, human rights.</p> <p>Research led by academics at Essex Law School shows that the use of AI can adversely affect all human rights, not just privacy, non-discrimination and freedom of expression [R1, R2]. Dedicated AI regulation has yet to be developed with many states and businesses arguing that regulation risks stifling innovation. Where states and businesses have produced AI strategies, they tend to focus on high-level principles often framed in terms of ethics and 'responsible' AI. Such strategies are of value; however, our research shows them to be an insufficient basis for future regulation as they provide inadequate guidance to users of AI on how to comply with their existing human rights obligations, including on the safeguards, accountability, oversight and remedial processes needed to effectively protect human rights [R1, R2].</p> <p>In the face of arguments that existing legal frameworks are outdated or ill-suited to governing AI technologies, our research [R1, R2] was among the first to argue that principles already contained in international human rights law (IHRL) are sufficiently agile and adaptable to apply to the AI context and resolve key governance challenges on how to protect human rights and prevent and mitigate harm. These principles include the provision of concrete and internationally agreed upon rights and methods of interpretation to assess whether rights have been infringed, such as legality, necessity and proportionality, in order to define and identify (potential) harm; and a framework for accountability for human rights harm. [R1, R2].</p>		

Applying this framework, we demonstrate how IHRL provides guidance to actors using AI in two key ways. First, we establish red-lines where AI cannot be used because it fundamentally conflicts with IHRL (for example, where its use pursues a discriminatory aim or has such an effect) or because insufficient safeguards exist to prevent harm to human rights or remedy harms that occur [R1]. Second, we show how IHRL provides an accountability framework based on prevention, oversight and remedies and a system of procedural safeguards [R1, R2]. Our research is the first to apply this framework to the AI context and demonstrate how it can map on to the full lifecycle of the conception, design and deployment of technologies [R1] through a due diligence approach that includes the conducting of regular human rights impact assessments; establishing internal monitoring and oversight mechanisms; grievance mechanisms; and external reporting [R1].

Our work employs this framework in specific applications, including analysing human rights impacts of mass surveillance via both legal and sociological expertise [R3]; developing a human rights-based approach to evaluate police live facial recognition deployments [R4] and applying the framework to the use of contact-tracing apps during Covid-19 [R5].

### 3. References to the research [can be supplied by HEI on request]

**R1** McGregor, L., Murray, D., and Ng, V. International human rights law as a framework for algorithmic accountability, *International and Comparative Law Quarterly* 68 (2):309-343 (1 Apr 2019) <http://doi.org/10.1017/S0020589319000046>

**R2** McGregor, L., Ng, V., and Shaheed, A. The Universal Declaration at 70: Putting Human Rights at the Heart of the Design, Development and Deployment of Artificial Intelligence. *HRBDT Report* (20 December 2018) <https://www.hrbdt.ac.uk/the-universal-declaration-of-human-rights-at-70-putting-human-rights-at-the-heart-of-the-design-development-and-deployment-of-artificial-intelligence/>

**R3** Murray, D., and Fussey, P. Bulk Surveillance in the Digital Age: Rethinking the Human Rights Law Approach to Bulk Monitoring of Communications Data, *Israel Law Review* 52 (1):31-60 (March 2019) <http://doi.org/10.1017/S0021223718000304>

**R4** Fussey P, Murray D, Independent Report on the London Metropolitan Police Service's Trial of Live Facial Recognition Technology *HRBDT Report* (July 2019) <https://www.hrbdt.ac.uk/download/independent-report-on-the-london-metropolitan-police-services-trial-of-live-facial-recognition-technology/>

**R5** Joint Committee on Human Rights, 'Written Evidence from Professor Lorna McGregor et al 0090): Urgent Need for Full Transparency and Human Rights Impact Assessment of the NHSX Contact Tracing App' (5 May 2020) (available from HEI on request).

**G1** McGregor, L., Sunkin, M., ,Fussey, P., Poesio, M., Bhalotra, S., Leader, S., McDonald-Maier, K., et al. Human Rights and Information Technology in an Era of Big Data (The Human Rights, Big Data and Technology Project), ESRC, October 2015 – September 2021, £4,743,734.

### 4. Details of the impact

Led by researchers at Essex Law School, our research has generated four major sets of impacts at the international and national level:

#### 1. Directly Shaping International Standards

Our research [R1, R2] has directly shaped two landmark resolutions (A/HRC/34/7 (2017); A/HRC/42/15 (2019)) of the UN Human Rights Council ('HRC'), the principal intergovernmental body responsible for the global promotion and protection of human rights. Both resolutions concern how human rights law applies to the design, development and use of AI technologies [S1].

The HRBDT has [Text removed for publication] [S2] [had] significant input into standard setting by the HRC. We have achieved this status by converting our research into short policy submissions, writing blogs known to be read by key beneficiaries, holding regular bilateral meetings with key beneficiaries in the UN space, and presenting our research at expert meetings and side events at the Human Rights Council [S3, S4].

[[Text removed for publication] **S3, S4**. [Text removed for publication][**S3**]. [Text removed for publication] [**S4**] [Text removed for publication][**S2**]. [Text removed for publication] [**S2**]

Since the 2017 resolution, 14 states have made 30 recommendations to other states in the Universal Periodic Review process (the peer review mechanism of the HRC) on the right to privacy in the digital age which directly relate to the contributions we made to the resolution, including on the requirement to establish oversight mechanisms and use the legality, necessity and proportionality test [**S1**]. [Text removed for publication] [**S4**].

The UN Secretary General cites HRBDT research [**R1**] in his report on the Role of New Technologies for the Realization of Economic, Social and Cultural Rights as the authority to support his submission that international human rights law provides, “*a key guiding framework for societies in shaping their responses to the challenges of an ever-changing technological environment*” [**S5** at para 40] and HRC Resolution 42/15 in establishing that international human rights law needs to be “*taken into account in the design, development and deployment of new and emerging technologies, such as artificial intelligence*” [**S5** at para 40, footnote 22]. That the Secretary-General uses the frames advocated by HRBDT is a major achievement as it will inform how the UN system engages with AI issues. The UN Office of the High Commissioner for Human Rights has already used the framing in a report on the impact of AI on the right to peaceful assembly, in which it draws on resolution 42/15 to apply IHRL to the full lifecycle of the design, development and deployment of AI technologies [**S5** at paras 38, 53(j)(i), para 54(c)].

## 2. Shaping Live Facial Recognition & Intelligence Oversight

HRBDT conducted the only existing independent study of police operational uses of live facial recognition (LFR) technology, preparing an independent report on the Metropolitan Police Service’s (MPS) LFR trials. The report [**R4**] was the first to apply a human rights law framework to the operational use of LFR in the UK. Combining socio-legal analysis of MPS documentation with ethnographic research of surveillance operations the work revealed significant limitations in the current legal basis for LFR, whereby common law provisions were found insufficient to protect citizens from arbitrary state interference and therefore deficient from a human rights standpoint. It also highlighted significant problems with the accuracy/reliability of the technology, and identified shortcomings with respect to the necessity test, including the absence of a sufficiently broad and detailed human rights impact assessment. During one of several times the research was discussed in Parliament, the Minister for Policing told Parliament (27/1/20) that our report would inform future policy decisions [**S6**].

The research directly shaped national policy on effective governance, with research insights directly incorporated into two national oversight frameworks issued to all police forces in England and Wales by the Surveillance Camera Commissioner (SCC): *Police Use of Overt Surveillance Camera Systems Incorporating Facial Recognition Technology* (2020) and *Police Use of Automated Facial Recognition Technology* governing public trials of the technology (2019). The SCC stated: “*your work has had a significant influence on the national guidance on Police Use of Overt Surveillance Camera Systems... issued... to provide a national framework to govern police uses of these surveillance systems... Your research offers rare empirical evidence of how police authorisation procedures are followed, the need to emphasise specific provisions within legislation to legitimate operations and the ways necessity and proportionality are conceived in in operational contexts. Your research on the human rights impacts of facial recognition technology supported our ambition to foreground human rights considerations throughout... These insights assisted me in clearly formulating human rights compliant guidance in an accessible and unambiguous manner... and are strongly reflected in sections three, four, six and seven of the policy.*” [**S7**].

During 2019, one of the main UK human rights organisations, Liberty, launched a judicial review challenging the legal basis for South Wales Police’s use of LFR (*R (Bridges) v Chief Constable of South Wales Police*). The case went to the Court of Appeal in June 2020 where HRBDT had several direct impacts. Several of Liberty’s legal arguments were directly shaped by our research [**R4**] and upheld by the Court, particularly those revealing excessive officer discretion around the deployment and use of this technology [**S8**]. Additionally, by invitation from the SCC and his legal team, HRBDT contributed to a formal *Amicus Curiae* submission to the Court, which drew extensively on HRBDT research [**R4**], and is reflected in the Court of Appeal’s judgment on the insufficient legal basis for LFR surveillance and deficiencies in police necessity calculations [**S7**]. Our LFR report [**R4**] played a key role in framing the public debate around public scrutiny of LFR,

particularly with respect to the accuracy of LFR technology. It was featured on *BBC Newsnight* and *PBS Newshour*, and generated over 200 stories, including *BBC Radio 4 (PM)*, *BBC News*, the front page of the *Financial Times*, *The New York Times*, *The Guardian*, *The Daily Mail*, *The Washington Post*, *The Times*, *Le Monde*, *La Repubblica* and *Last Week Tonight*, among others, with a combined readership of millions [S6].

Our research [R1] also informed the policy and practice of the Investigatory Powers' Commissioners Office (IPCO), the UK intelligence oversight body with powers over Government Communications Headquarters (GCHQ), and other police/security bodies. HRBDT convened four research-informed IPCO-Essex workshops, focusing on modern surveillance oversight, and targeted to challenges faced by IPCO. "IPCO... used the learning from the workshops to aid our understanding on issues such as the recent consultation on the review of the Consolidated Guidance to Intelligence Officers and Service Personnel... the workshops have informed the development of our policies, including how we evaluate necessity and utility, and they have assisted us in developing our relationship with other organisations, in order to secure transparency and legitimacy. The Essex research demonstrates the role human rights law can play in such debates and the potential clarity it can offer." [S9].

### 3. Informing the Joint Committee on Human Rights' Analysis of the Legality and Legitimacy of Contact-Tracing Apps in the Context of Covid-19

We drew on our research [R1, R2] in a written submission to the UK Parliament's Joint Committee on Human Rights (JCHR) to show how the existing human rights framework should apply to the governance of contact tracing apps [R5]. Our submission was one of the few academic sources cited by the JCHR in its report on 'Human Rights and the Government's Response to Covid-19: Digital Contact Tracing' [S10, p6 fn 4 and 5; p9, fn10]. The Committee's main proposals, conclusions and recommendations which formed the basis for a draft bill proposed by the Committee on contact tracing apps (pp11-17) aligned with our arguments that an app "will not be as effective if uptake is low"; the need for a dedicated legal basis for the app; for a human rights impact assessment to be carried out and for an independent oversight body [S10, pp4 and 11-17]. Our submission was also cited by the Committee in its report, 'The Government's Response to COVID-19: Human Rights Implications', citing our arguments on the risks of "mission creep" in the data collected by the app [S10, para 165] and "digital exclusion" [S10, para 166].

### 4. Working with Business to Support Development of AI Strategy and Policy

[Text removed for publication] [S11].

### 5. Sources to corroborate the impact

**S1** Human Rights Council Resolution 34/7, "The Right to Privacy in the Digital Age" (2017), Human Rights Council Resolution 42/15, "The Right to Privacy in the Digital Age" (2019) and summary of recommendations made by states to other states in the Universal Periodic Review process since the adoption of Resolution 34/7 in 2017 on the right to privacy since the adoption of resolution 34/7 and using the language of the resolution.

**S2** [Text removed for publication]

**S3** [Text removed for publication]

**S4** [Text removed for publication]

**S5** Human Rights Council, 'Report of the Secretary-General: Question of the realization of economic, social and cultural rights in all countries: the role of new technologies for the realization of economic, social and cultural rights' UN Doc A/HRC/43/29 (4 March 2020) (page 10). Human Rights Council, Report of the Secretary-General: 'Report of the UN High Commissioner for Human Rights: Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests' A/HRC/44/24 (24 June 2020), OHCHR Impact of new technologies

**S6** Hansard Minister for Crime, Policing and the Fire Service, responding to questions on police use of LFR (27/1/20)

**S7** Live Facial Recognition Media Impact Compilation with screen shots.

**S7** Letter from Surveillance Camera Commissioner (20 December 2020).

**S9** Letter from former Investigatory Powers Commissioner (13 January 2020).

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**S8** Testimonial from Head of Policy and Campaigns, Liberty (13 January 2021).

**S10** Joint Committee on Human Rights, 'Human Rights and the Government's Response to Covid-19: Digital Contact Tracing' (7 May 2020) [Human Rights and the Government's Response to Covid-19: Digital Contact Tracing - Joint Committee on Human Rights - House of Commons \(parliament.uk\)](#) (pp, 6, 9, 21) and 'The Government's Response to COVID-19: Human Rights Implications' (21 September 2020), [The Government's response to COVID-19: human rights implications \(parliament.uk\)](#) (page 51)

**S11** [Text removed for publication]